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09/896,887	06/28/2001	Todd Joseph Krautkremer	6533/53628	1541

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EXAMINER

LIN, WEN TAI

ART UNIT PAPER NUMBER

2154

DATE MAILED: 10/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/896,887

Applicant(s)

KRAUTKREMER, TODD JOSEPH

Examiner

Wen-Tai Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/27/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-30 are presented for examination.
2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because the inventor' signature is missing.

3. Claims 19, 24-25 and 30 are objected to because the following terms lack antecedent basis:

In claims 19 and 25, "the providing step";

In claims 24 and 25, "the user"; and

In claim 30, "the second computer network".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the

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invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2, 7, 9-11, 13-14, 16-17, 20-22, 27 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Elleson et al.[U.S. Pat. No. 6459682].

6. As to claim 1, Elleson teaches the invention as claimed including: a system allowing for centralized, network application performance management services, comprising:

a first network [e.g., A2, Figs.1A –1B], a customer site comprising a second network [e.g., A1, Figs. 1A-1B], an access link between the first network and the second network of the customer site, a managed network operations center [10, Fig.1A] operably connected to the first network, the managed network operations center monitoring the access link between the first network and the second network of the customer site, and, a bandwidth management device [e.g., E1 or E2, Fig.1A] operably connected to the access link;

wherein the bandwidth management device is operable to monitor network traffic on the access link in relation to bandwidth utilization and application performance and transmit data related to the network traffic to the managed network operations center [col.7, lines 1-6; Abstract];

wherein the bandwidth management device is operable to control network traffic based on a set of bandwidth management policies [col.5, lines 48-62]; and

wherein the managed network operations center is operable to apply to the bandwidth management device a set of bandwidth management policies based on application performance priorities received from an enterprise customer associated with the customer site [Abstract: lines 6-12; col.2, lines 13-20; col.3, lines 8-20].

7. As to claim 2, Ellesson further teaches that the managed network operations center is operable to manage a plurality of bandwidth management devices [e.g., E1, E2, Fig.1A] across a plurality of enterprise customers [e.g., A1, A2, Fig.1A], wherein each enterprise customer has associated therewith at least one of the plurality of bandwidth management devices [Figs.1A-1B; col.3, line 38 – col.4, line 13].

8. As to claim 7, Ellesson further teaches that the system comprises a routing device located at the customer site between the second network and the access link, the routing device operable to route data between the first network and the second network [col.4, lines 3-5; note that by calling the router a border router, it is clear that Ellesson's customer site extends to include the router].

9. As to claim 9, Ellesson further teaches that the bandwidth management device is located within the routing device [col.4, lines 3-5].

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10. As to claims 10-11, Ellesson further teaches that the bandwidth management device is located between the access link and the first network [i.e., the other edge device, E2 of Fig.1A, is located between the access link and the first network].

11. As to claim 13, Ellesson further teaches that the first network is a wide area computer network [Abstract; col.2, lines 13-20; note that the IP network includes a wide area computer network].

12. As to claim 14, Ellesson further teaches that the second network is a local area network [by default an enterprise network or customer premise network includes a local area network].

13. As to claims 16-17, 20-22, 27 and 30, since the features of these claims can also be found in claims 1-2, 7, 9-11 and 13-14, they are rejected for the same reasons set forth in the rejection of claims 1-2, 7, 9-11 and 13-14 above.

As for the additional feature of profiling the network traffic in claims 17, 20-22: it is noted that Ellesson teaches that each edge device maintains various counter to monitor traffic rates of flows in either direction [col.5, lines 63-65] and the channel statistics, including the bandwidth utilization (or, bandwidth consumption) is collected to the control server for further assessment [col.7, lines 1-6].

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 3-4, 8 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elleson et al.(hereafter "Elleson")[U.S. Pat. No. 6459682], as applied to claims 1-2, 7, 9-11, 13-14, 16-17, 20-22, 27 and 30 above.

16. As to claim 3, Elleson further teaches that the managed network operations center comprises a device manager server [e.g., 11, Fig.1A] operably connected to the first network to receive data from the bandwidth management device [e.g., E1, Fig.1A]; and

a control server storing network traffic data corresponding to a plurality of bandwidth management devices across a plurality of business enterprises;

wherein the device manager server is operable to store the data received from the bandwidth management device [col.7, lines 1-6].

Elleson does not specifically teach that the network traffic data is stored in a database. However, Elleson teaches that the control server acts as a repository of dynamic and quasi-static information [col.6, lines 28-37]. It is therefore obvious to one of

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ordinary skill in the art that the information could be stored in a database maintained by the control server because its easier to access and maintain the information stored in a database.

17. As to claim 4, Ellesson further teaches that the managed network operations center further comprises a data analysis server operable to analyze the network traffic stored in the network traffic database [col.7, lines 1-15].

18. As to claim 8, Ellesson does not specifically teach that the bandwidth management device [e.g., E1 of Figs. 1A-1B] is located between the routing device and the access link. However, as indicated in the exemplified architecture of Figs. 1A and 1B (wherein the ingress device E1 is located before the router), it appears that the traffic flowing through E1 is the same as that of the path connecting between the router and the access link (i.e., the backbone network). As such, it is obvious to one of ordinary skill in the art that locating the management device before or after the border router of Ellesson's architecture is a design choice because either way would cause the device to receive the same traffic condition.

19. As to claim 28, since the features of this claim can also be found in claims 1-4, it is rejected for the same reasons set forth in the rejection of claims 1-4 above.

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20. Claims 5-6, 12, 15, 18-19, 23-26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellesson et al.(hereafter "Ellesson") [U.S. Pat. No. 6459682], as applied to claims 1-4, 7, 9-11, 13-14, 16-17, 20-22, 27-28 and 30 above, further in view of Vaid et al. (hereafter "Vaid") [U.S. Pat. No. 6502131].

21. As to claims 5-6, Ellesson teaches that both the control and directory servers store various static and dynamic information reflecting the backbone network traffic and states of operation. Ellesson does not specifically teach that the managed network operations center (or data analysis server) includes functionality allowing for the generation of reports related to application performance and network traffic across the access link.

However, in the same field of endeavor Vaid teaches a traffic management system wherein a tool performs incoming and/or outgoing management of information over the network of computers and is capable of generating reports reflecting the whole spectrum of traffic monitoring and control activities. Additionally, it is well known that operation reports can be generated out of system log recording various events.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ellesson and Vaid by enabling Ellesson's control server, which includes data analysis functionality, to generate a similar reports because such reporting functionality would systematically give out relevant information reflecting the traffic monitoring and control activities, thereby facilitating the detailed understanding about the performance of Ellesson's system.

22. As to claim 12, Ellesson teaches that the management device is able to change initial traffic classes and form a new set of traffic classes in order to accommodate various traffic conditions. Ellesson does not specifically teach that the managed network operations center is operable to alter the set of bandwidth management policies implemented by the bandwidth management device.

However, in the same field of endeavor, Vaid teaches a management tool that is able to deploy changes to match network growth or changing needs in a growing office [col.10, lines 27-40] and translate the external events into changes in policy (event driven policies) [col.23, lines 47-48].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ellesson and Vaid by enabling Ellesson's bandwidth management devices to change the bandwidth management policies because Ellesson's changes in traffic classes in response to changes in traffic conditions is part of a policy change, while by implementing direct policy changes in the management device would make Ellesson's system adjusted to meet more "long-term" changes in the network environments.

23. As to claim 15, Ellesson teaches that LDAP protocol can be used for communicating between the directory/control servers and the edge devices [col.9, lines 3-13]. Ellesson does not specifically teach that the bandwidth management device

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further includes customer portal functionality facilitating interaction between the customer site and the managed network operations center.

However, in the same field of endeavor Ellesson teaches a bandwidth management system with a web-based policy manager, which provides a location independent user interface along the network [Fig.18; col. 26, line 55 – col.27, line 22]. Furthermore, it is well known in the art of remote diagnosis to provide an embedded server in a target device for remote interfaces.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ellesson and Vaid by enabling Ellesson's management devices with capability of being remotely interfaced because by doing so it would facilitate the operator of Ellesson's system to constantly monitoring/updating the management devices.

24. As to claims 18-19, 23-26 and 29, since the features of these claims can also be found in claims 1, 5, 12, 15, 17 and 27-28, they are rejected for the same reasons set forth in the rejection of claims 1, 5, 12, 15, 17 and 27-28 above.

As for the additional limitations requiring the system to allow a request to change policy for a customer site and implement a new set of bandwidth management policies based on the requested changes (in claims 23 and 25): it is noted that since Ellesson and Vaid's system is directed toward implementing policy rules in accordance with the service level agreements established between a service provider and its customers, it is

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obvious that when requesting for changing service levels (which is an anticipated event in the network service provisioning business), it always comes with corresponding changes in the policies [Elleson: col.7, lines 26-38]. As such, it is obvious to one of ordinary skill in the art that Elleson and Vaid's system must be able to change/update the policies in response to a customer's request for changing service levels.

As for the additional limitation requiring authenticating the user prior to applying the new set of policies (in claim 24): it is noted that it is obvious to one of ordinary skill in the art to have authenticate the user prior to changing the management policies because this is an obvious practice for security purpose.

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Richter et al. [U.S. PGPub 20030046396];

Johnson et al. [U.S. PGPub 20020049841];

Sistanizadeh et al. [U.S. Pat. No. 6681232]; and

Guha [U.S. PGPub 20020194324].

26. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 days from the mail date of this letter. Failure to respond within the period for response will result in ABANDONMENT of the application (see 35 U.S.C. 133, M.P.E.P. 710.02, 710.02(b)).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (703)305-4875. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

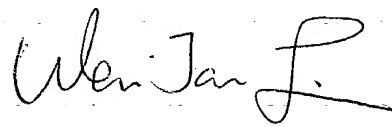
(703)872-9306 for official communications; and

(703)746-5516 for status inquires draft communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Wen-Tai Lin

October 13, 2004


10/13/04